Agriculture and Agri-Food Canada
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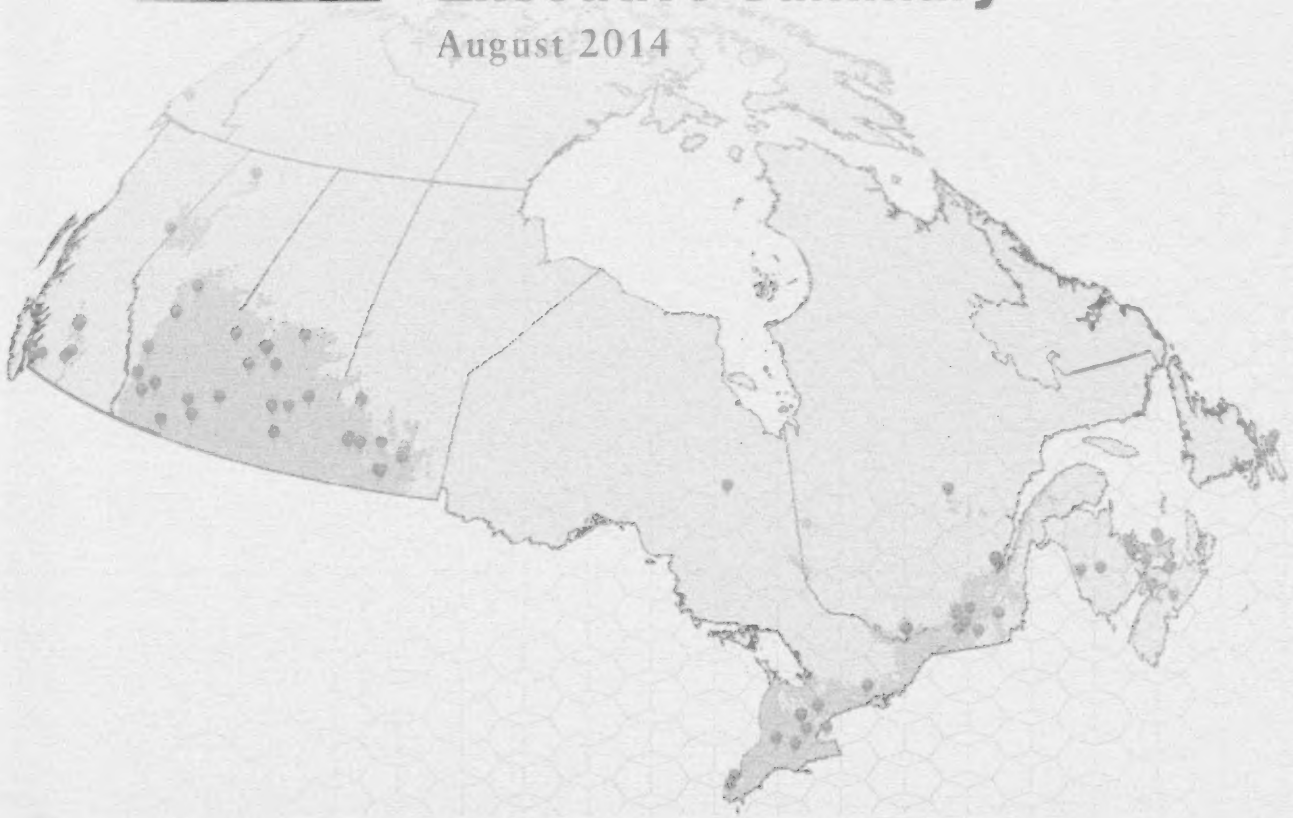
Canada

SCIENCE STRATEGIES

Agriculture and Agri-Food Canada

Executive Summary

August 2014



Science Strategies, Agriculture and AgriFood Canada - Executive Summary

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Electronic version available at
www.http://www.agr.gc.ca/eng/about-us/planning-and-reporting/overview-of-science-and-technology-branch-sector-science-strategies/?id=1405554689843
Catalogue No. A59-17/1-2014E-PDF
ISBN 978-1-100-25222-3
AAFC No. 12301E

Paru également en français sous le titre :
Stratégies scientifiques, Agriculture et Agroalimentaire Canada : sommaire

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INTRODUCTION

The role of science and technology continues to be critically important in maintaining the profitability and competitiveness of Canada's agriculture, agri-food and agri-based products sector. At the same time, the sector's science requirements are growing in complexity, new technologies are emerging, the government policy and program landscape is changing, and the science capacity of other players in Canada's agri-innovation system – such as provincial governments, universities and the private sector – continues to evolve. In this context, Agriculture and Agri-Food Canada (AAFC) continues to modernize its delivery of science and technology, an important part of the Department's mission to provide leadership in the growth and development of a competitive, innovative and sustainable Canadian agriculture and agri-food sector.

Two events set the stage for a renewed strategic planning process around AAFC science activities.

- One was the 2012 creation of the Science and Technology Branch (STB), a merger of two existing branches which integrated the Department's scientific expertise and achieved a more coordinated interface with industry and other groups.
- A second key event was renewal of the federal-provincial-territorial agricultural policy framework, *Growing Forward 2* (*GF2*).

The *GF2* consultation process among governments and industry established a clear consensus on the importance of science and innovation, and gathered a wide range of input on industry priorities for science and technology. The resulting federal AgriInnovation Program responds to these priorities, providing both government- and industry-led funding to encourage collaborative approaches across government, industry and academia in addressing the sector's scientific challenges. In particular, the Agri-Science Clusters and Agri-Science Projects provide a direct way for industry to identify and fund its science priorities, and for STB to align its science capacity to complement and support those priorities.

ESTABLISHING A STRATEGIC DIRECTION

During 2012 and 2013, STB conducted a strategic planning process to shape the future direction of the Branch. This process took into account a number of considerations, included among them:

- AAFC's role along the innovation continuum in providing research (R) resulting in knowledge acquisition, developing or applying that knowledge (D), together with concerted efforts to transfer (T) this knowledge and technology or practices to stakeholders;

- the existing science capacity within AAFC and other levels of government, academia, the private sector and other organizations across Canada that could be mobilized to support the agriculture, agri-food and agri-based products sector;
- a reduced overall federal footprint, requiring greater focus in AAFC science activities;
- interaction with industry through science clusters and other collaborations and partnerships; and,
- increased direct support for industry leadership in science and innovation provided by the *Growing Forward 2* agricultural policy framework.

The planning process incorporated analyses of global challenges and opportunities facing the sector and identified a number of relevant trends, including:

- rising global demand for food and energy, intensifying demands for food and for improvements in diet and nutrition, a challenge in some cases exacerbated by competition for agricultural resources such as land and water;
- growing importance of trade and the increase in bilateral and regional trade negotiations in the absence of progress at the multilateral level;
- impact of climate change and growing importance of environmental issues including invasive species;
- consumer and processor demands for foods with specific attributes, especially those related to food safety and nutrition;
- erosion of government fiscal positions in many countries, putting pressure on public investments, including investments in agricultural research and farm income support;
- pressures arising from increasing input costs and price volatility on international and local markets.

Following internal engagement with staff, the STB established a strategic direction grounded in ***three pillars*** that emphasize its role in supporting the sector's economic prosperity:

- Providing science that enhances the sector's resiliency;
- Fostering new areas of opportunity for the sector; and
- Supporting sector competitiveness.

Nine sector science strategies have been developed to set priorities for AAFC's science activities over the medium term, providing the basis for detailed work planning within STB. The strategies outline STB's objectives and focus areas for research, development and knowledge transfer (RDT), provide a framework for scientists to propose areas of work, and describe the role STB will play in relation to, and in collaboration with, other organizations in academia, government and industry.

Seven of the strategies are commodity-focused, encompassing science activity for: Forages and Beef; Cereal and Pulse; Oilseeds; Horticulture; Dairy, Pork, Poultry and Other Livestock; Bioproducts; and Agri-Food. Two other strategies capture cross-cutting agricultural challenges: Agro-Ecosystem Productivity and Health; and Biodiversity and Bioresource.

Each strategy identifies the unique context, issues, challenges and opportunities for the sector and outlines the Branch's objectives and focus areas for RDT. To provide a consistent framework for the science strategies, each one sets out areas of focus for AAFC science within ***four strategic objectives*** that address the major scientific challenges facing 21st century agri-based production systems. These objectives underpin all the science strategies and allow AAFC to group and characterize Branch science and technology efforts.

The first objective, *increasing agricultural productivity,* includes RDT that increases the yield potential of crops, improves feed efficiency for livestock, and decreases the yield gap (the gap between potential yield and realized yield) by addressing biotic stresses (weeds, insects and diseases), abiotic stresses (nutrients, water, cold, salinity, soil structure, heat), and system-level productivity (e.g., crop rotation, pasture systems). This area of research also includes finding suitable uses for marginal lands and using agricultural biodiversity for greater economic sustainability.

The second objective, *improving environmental performance,* includes RDT focused on ways to improve the efficiency of nutrient utilization and recycling, enhance integrated pest management practices, improve management of water resources and the energy sustainability of agricultural practices, mitigate greenhouse gas production, improve soil quality, and more generally reduce the environmental footprint of agriculture and agri-food production and processing.

The third objective, *improving attributes for food and non-food uses,* includes RDT in the food and feed area that examines nutrition and health promotion, feed quality for animal production, food quality for marketable traits and characteristics, shelf life and post-harvest storage, edible vaccines, food processing and packaging. RDT in the area of non-food, or industrial, applications encompasses biofuels and bioenergy, feedstocks for pharmaceuticals, biochemicals, and fibre, as well as biopesticides and biofumigants.

The fourth objective, *addressing threats to the agriculture and agri-food value chain,* includes RDT that addresses significant production impacts related to biotic and abiotic stresses, and ensures food safety in agricultural production systems as well as processed and pre-packaged foods.

OVERVIEW OF AAFC SCIENCE STRATEGIES

The following sections provide an overview of the individual strategies. More specific details on how AAFC's RDT contributes to the four strategic objectives for each sector are provided in Appendix A.

Forages and Beef

The Forages and Beef Science Strategy considers the RDT needs and research capacity of the sector from beef production through meat quality, and the production of native and tame forages for export and domestic use, as well as forage production from cropland, grasslands and forested rangeland.

AAFC's strength lies in its multidisciplinary approach and the in-house expertise available to tackle major issues. In the beef sector, the STB has significant research capacity in meat quality, ruminant nutrition, microbiology, and food safety along with cow-calf and feedlot production systems; it also makes an important contribution in the areas of genomics, animal welfare and livestock entomology. With regard to forages, AAFC's work contributes to the development of tame forages for the beef and dairy sectors, with a focus on improving their nutritive value, productivity and tolerance to biotic and abiotic stresses, as well as enhancing understanding of native varieties. AAFC also undertakes research on native species and range management.

The objectives outlined in AAFC's Forages and Beef Science Strategy can help address the industry's main challenges, take advantage of key opportunities, and contribute to research priorities identified in the industry-led National Beef Research Strategy. Specifically, AAFC research will focus on:

- germplasm, variety development, and identification of novel attributes in native and tame species of forages;

Integration of the Strategies

The integrated nature of the strategies makes it important to consider them as a group, in terms of understanding the full contribution and impact of AAFC science activity. As an example, the Cereal and Pulse Strategy identifies areas of focus for AAFC research, development and knowledge transfer to directly support cereal production, but in addition there are RDT activities in other strategies whose benefits extend to cereal production, such as:

- work to increase foundational knowledge of crop diseases and pests (Biodiversity and Bioresource Strategy);
- understanding the impacts on crop production of changes in weather and climate conditions (Agro-Ecosystem Productivity and Health Strategy); and
- improvement of milling technologies and flour functionality (Agri-Food Strategy).

- integrating forage crop management to optimize yield, persistence and nutritive value; and
- increasing agricultural productivity of beef production through RDT in animal feed efficiency, reduction in animal stress, and advanced technologies in animal breeding and production.

RDT to improve attributes for food and non-food uses will focus on:

- identification and development of novel attributes of native and tame species;
- improving key beef quality characteristics;
- developing market-driven quality assessment technologies;
- improving beef by-product utilization; and
- developing alternatives to antimicrobials.

The environmental performance of the beef sector will be addressed by:

- developing industry and market-driven sustainability metrics for forages and beef, increasing resource use efficiency in forage production, and reducing the environmental impact of beef production.

AAFC's RDT will also address current and future threats to the beef value chain.

Cereal and Pulse

The Cereal and Pulse Science Strategy considers the RDT needs and research capacity of these sectors from a crop production perspective with a primary focus on wheat, corn, peas (dry, green, yellow, and other), lentils, barley (malt and feed), oats, and dry beans (white and coloured) as well as other grains such as canary seed, chickpeas, rye, triticale and buckwheat.

AAFC's current RDT capacity for these sectors encompasses integrated crop management (with agronomy, crop protection and plant biology research contributing to more effective integrated cereal management and improved yield), genetic improvement and germplasm development (with research focusing on improving disease and insect resistance, quality and yield), as well as variety finishing for specific crops.

Canada's position as a major grain exporter is expected to strengthen as the global population continues to grow and as economic recovery continues. However, Canada's presence in this global market and its ability to be competitive will, in part, be dependent on industry investing in innovation and on producers adopting the resulting technologies. AAFC will help solidify Canada's competitive position by focusing its RDT on the following areas.

To increase sector productivity, AAFC will focus on increasing the genetic yield potential of cereal and pulse crops, and working to provide producers the agronomic tools to allow their crops to achieve these yield potentials.

To improve quality attributes of cereals and pulses, AAFC will focus on:

- developing Canadian cereal and pulse genetics and production practices for improved marketability; and
- maximizing the health potential of cereals.

AAFC's efforts will aim at enhancing the environmental performance of cereal and pulse production systems by:

- improving the efficiency of nutrient utilization; and
- developing integrated crop management practices to reduce the impact of insects, disease and weeds on production systems.

Additional RDT to address threats to value chains will improve cereal safety by

- reducing mycotoxins; and
- mitigating emerging biotic threats to cereal and pulse production.

Oilseeds

The Oilseeds Science Strategy considers RDT needs and research capacity as it relates to crop production, particularly for food and feed end uses, up to and including storage of harvested material. The crop types considered within this strategy include canola, rapeseed, mustard, soybeans (oilseed and food grade), flax, sunflower, hemp and safflower.

There is a wide range of capacity in the different oilseed crop sectors to support corresponding RDT. However, most oilseed crop sectors have developed national and/or regional RDT strategies or priorities and have been successful in obtaining funding through industry-led Growing Forward programming.

AAFC's current RDT capacity encompasses integrated production systems (agronomy, crop protection and biology), genetic improvement and germplasm development (including genomics), and variety finishing/regional testing for crop adaptation. The STB is particularly active in upstream research using genomics and molecular biology to better understand disease and insect interactions with plants and to identify genes conferring desirable traits in order to mitigate impacts. This work also increases understanding of the genetic basis of quality and anti-nutritional seed traits, and plant responses to abiotic stresses. Other RDT activities include optimizing crop

production practices through plant nutrition, effective rotations, and insect, disease and weed management in order to respond to climate change impacts and producer needs.

AAFC science to increase productivity and improve attributes for food and non-food uses of oilseeds will focus on:

- using genetic improvement, germplasm development, the creation of new breeding tools, variety development and enhanced production methods to increase the yield potential of oilseed crops, mitigate the impacts of abiotic stress factors, and respond to market demands and requirements for specific oilseed crop quality traits; and
- supporting the development of a range of effective and efficient integrated production systems involving oilseeds by taking into account agronomy, crop protection, biology, and early-generation and variety testing for crop adaptation to regional conditions, in order to decrease the yield gap for oilseed crops.

AAFC's RDT will also improve environmental performance of the sector by:

- enhancing sustainable oilseed production practices;
- improving nutrient and water use efficiency; and
- developing sustainability metrics for oilseed crop production.

New knowledge and tools developed by AAFC will also help mitigate factors that threaten the oilseed value chains, including new and emerging biotic stresses.

Horticulture

The Horticulture Science Strategy considers the RDT needs and research capacity of this sector from a crop production perspective including production, post-harvest treatment, storage, and distribution of fresh and minimally processed produce. The crops covered in this strategy include potatoes, greenhouse and field vegetables, small fruits, tree fruit, floriculture, nursery, Christmas trees, sod, maple, honey, and herbs and spices.

With over 120 different horticultural crops produced in Canada, there is a wide diversity in both the types of crops grown and the growing conditions between regions. RDT efforts, therefore, encompass a variety of ecozones. With such a diverse sector, a wide range of capacity exists in the horticultural crop sectors for corresponding RDT activities, and limited capacity exists to set national priorities and raise funds.

AAFC's current capacity in horticulture includes integrated production systems (agronomy, crop protection and biology); environmentally sustainable production systems; post-harvest handling and storage; germplasm development to improve productivity and tolerance to biotic and abiotic

stresses for some horticultural crops (potato, tree fruit and berry crops); and generation of field and greenhouse data (efficacy, residue and crop tolerance) in support of minor use pesticide registration.

AAFC's RDT will focus on:

- developing integrated crop production and management systems and the development of knowledge and predictive tools to minimize losses due to existing and emerging biotic and abiotic stresses on horticultural crop production;
- using genetic information, germplasm development and integrated production systems to improve yield potential and tolerance to biotic and abiotic stresses for some major horticultural crops;
- improving the efficiency of nutrient, water and energy utilization and reducing the environmental impact of horticulture crop production through practices such as integrated pest management and integrated crop production;
- addressing market demands for consistent composition and quality traits through crop management techniques; and
- using genetic information and germplasm development to improve crop attributes for some major horticultural crops.

New knowledge and tools developed by AAFC will also help to mitigate factors that threaten the horticulture value chains, including predictive capacity to anticipate emerging biotic stresses, and enhance the safety and marketability that are particular to horticultural products from production, post-harvest handling, storage and distribution systems.

Dairy, Pork, Poultry and Other Livestock

The Dairy, Pork, Poultry and Other Livestock Science Strategy concentrates on the RDT needs and research capacity of dairy and pork, from production through product quality assessment (milk, meat), and includes on-farm revenue-generating activities such as the production of bio-energy from manure. It also encompasses other livestock production systems such as broilers, turkey, laying hens, eggs, goats, ostriches, ducks and geese, rabbits, foxes, mink and chinchilla.

The dairy sector is well organized and coordinated, with industry supporting R&D focused on human nutrition and health, genetics and genomics, and sustainable production systems, and with strong technology transfer capacity. The pork sector has faced various challenges in recent years but has significant research capacity in animal nutrition and disease management; and moderate capacity in genetics and breeding, production, input management, and meat quality.

For both dairy and pork, the STB will continue to use a multidisciplinary approach and play a coordinating role in integrating all aspects of the production system along the value chain. AAFC

science will focus on increasing the efficiency and productivity of dairy and pork production at the gene, animal and production system levels through RDT, to improve:

- disease resistance;
- animal welfare of swine;
- sow and piglet productivity;
- lactation persistence of dairy cattle; and
- input use efficiency for dairy and swine.

Reducing the environmental impact of dairy and pork production entails:

- RDT at the animal level to:
  - reduce greenhouse gas emissions and nutrient excretion in dairy cattle;
  - reduce nutrient excretion and odours in swine; and
- RDT at the production system level to reduce greenhouse gas emissions and ammonia and improve nutrient management and efficiency of natural resource use in dairy, swine, poultry and other livestock.

AAFC will also focus on improving the safety of the dairy and pork value chains through RDT, to:

- improve the health status of cows and pigs;
- increase the safety of milk;
- reduce antibiotic use and develop alternatives to antibiotics; and
- decrease risks from manure/slurry pathogens and other compounds.

Value-added characteristics for pig carcasses and meat quality will also be identified and developed to help improve pork quality attributes for food uses and ensure the preservation of quality throughout the value chain.

For poultry and other livestock production operations, AAFC science will contribute to improving gut health of chickens, improving food safety along the value chain (reducing antibiotic use and developing alternatives, reducing risks from manure pathogens and other compounds), and decreasing the environmental impact of livestock operations at the production system level by reducing greenhouse gas and ammonia emissions and improving nutrient management and the efficiency of natural resource use.

Bioproducts

The Bioproducts Science Strategy concentrates on RDT needs related to agri-based feedstocks for non-food and non-feed industrial bioproducts. This includes multi-purpose commodities whose end use is industrial (e.g. flax for fibre); purpose-grown crops (e.g., *Brassica carinata* and

Camelina sativa); animal and food waste; woody species (agroforestry); and biopesticides.

This is a diverse emerging sector with yet-to-be fully developed supply chains. Non-traditional partnerships and collaborations are devoting efforts to numerous manufacturing sectors, and industry leadership continues to emerge.

The STB is best positioned to focus on the upstream portion of the supply chain and address gaps in the innovation continuum that cannot be addressed solely by industry or other RDT organizations. AAFC's RDT will focus on identifying components and properties in existing crops and livestock for value added industrial applications, and developing new purpose grown biomass crops. This includes discovery-type research in:

- plant and animal biology, biochemistry;
- plant-made industrial, pharmaceutical and vaccine products;
- biopesticides; and
- total plant utilization and co-product development.

Increasing biomass yield potential and improving feedstock productivity quality and availability entails RDT by AAFC in:

- genomics;
- germplasm development; and
- agronomic improvement including crop protection, nutrient management, adaptation, and land suitability.

AAFC will also focus RDT on increasing sustainability of feedstock production and developing quantitative measures to support industry in the development of sustainability metrics. The final focus area for this strategy is mitigating emerging biotic and abiotic threats to bioproduct feedstocks.

Agri-Food

The Agri-Food Sector Science Strategy outlines the RDT needs related to the agri-food sector, including food, beverage and food ingredients, processing, packaging, distribution and consumption. As the largest market for agricultural products, this sector has links with most of the commodity sectors.

AAFC provides expertise and infrastructure along the RDT continuum and leadership in food innovation (food and health, food processing and food attributes) and food safety. In the area of food innovation for growth -- enhancing the innovative capacity and competitiveness of the Canadian agri-food sector -- AAFC's RDT will focus on:

- generating new knowledge of attributes to support the differentiation of Canadian agri-food products and ingredients while meeting the quality and cost requirements of domestic and export markets;
- identifying Canadian crops, livestock, and agri-food products with bioactive and/or functional properties of economic interest and determining their nutritional and physicochemical properties and/or biofunctional benefits;
- supporting the sector in developing cost-effective agri-food processes and new agri-food products and/or ingredients with novel health and/or functional attributes;
- enhancing by-product utilization in the development of agri-food products; and
- developing greener alternative agri-food processing and preservation techniques including approaches to improve resource management, reduce waste and losses due to spoilage during production, processing and distribution.

In the area of food safety, AAFC's RDT will focus on identifying pathogens and other chemical and biochemical threats to the food supply and generating knowledge of their ecology across the food processing value chain, and developing, testing and adapting novel approaches to reduce the incidence of microbiological, chemical, and biochemical threats to the food processing supply chain.

Agro-Ecosystem Productivity and Health

The Agro-Ecosystem Productivity and Health Science Strategy considers the RDT needs related to issues such as addressing threats and opportunities from the environment, maintaining and enhancing natural productive capacity, and reducing environmental footprints. As such, this strategy closely interacts with all other strategies.

The overarching goal of this Strategy is to promote sustainable intensification of Canadian agricultural production. It addresses cross-cutting and cross-commodity challenges and the scope includes the RDT activities that address the agri-environmental challenges and opportunities in the context of integrated agricultural production systems. This includes the assimilative capacity of the wider ecosystem for nutrient losses, air quality effects, extraction of water, and/or organism release (i.e. the movement of organisms (e.g. pests) to ecosystems) that relate directly to agricultural activities. Some examples of cross-cutting areas that fall under the APH strategy are: soil function; nutrient cycling; water quality; air quality; weeds; crop rotation; tillage systems; manure management; tools to better manage weather and climate risks; and science to support sustainability metrics.

External capacity for RDT is significant but interests vary across the different sector organizations. AAFC's RDT capacity is well distributed across Canada and encompasses multidisciplinary and long-term efforts. This requires multiple sites for field research and long-term experiments and associated specialized laboratory facilities to gain insight into the effects of

variation in soil, landscape, climate and vegetation characteristics across Canada.

The APH Strategy supports each of the Branch's strategic objectives:

Increase agricultural productivity:

- Water – improve land and crop management strategies in response to water stress;
- Climate and air – enhance production system performance to anticipated weather and climate impacts;
- Land and soil – enable informed land use decisions based on land suitability; increase resource use efficiencies to reduce production costs; and
- Biodiversity for integrated production systems – reduce impact of known pests.

Improve environmental performance:

- Water – maintain/enhance quality of surface water and ground water;
- Climate and air – maintain/enhance air quality by reducing undesired inputs into the atmosphere;
- Land and soil – maintain/enhance soil productive capacity; improve nutrient management; capture resource synergies and efficiencies; and
- Biodiversity for integrated production systems – maintain/enhance desired ecosystem functions.

Improve attributes for food and non-food uses:

- Provide the sector with quantitative scientific measures to support development of environmental goods and services and sustainability metrics to preserve and enhance market access.

Address threats to the value chain:

- Climate and air – improve ability to address extreme weather risks to production; provide information to assess extreme weather impacts on production to inform government decision –making; and
- Biodiversity for integrated production systems
  - mitigate impacts from emerging pests through integrated livestock and crop management practices; and
  - mitigate loss or fragmentation of habitat for beneficial organisms (e.g., pollinators).

Biodiversity and Bioresource

The Biodiversity and Bioresource Strategy outlines the STB strategic direction and areas of focus for research activities involving the study of biodiversity and bioresources as they relate to agriculture, agri-food, and agri-based industries (agro-biodiversity). It also covers the Branch's scientific activities related to the preservation of organisms and genetic material of interest to the sector, and to the protection of Canada's biodiversity and agricultural value chain from pests and invasive species.

This area is cross-cutting in that the knowledge and technologies resulting from its study are required to support all sector commodities. The Strategy emphasizes the study of biological diversity of crops and their relatives, beneficial and native species, pests, invasive and alien species, and also enables advances in areas such as genetic improvement of crop and farm animal species, improvement of management methods, development of new crops or crop attributes, identification of threats and mitigation of risks caused by pests and invasive alien species. It includes the study of biodiversity at the agro-ecosystem level, including the effects of agricultural practices on populations of living organisms.

This strategy also covers activities that assist the sector in meeting domestic legislation and regulations, foreign requirements and fulfilling AAFC's commitments resulting from international agreements to which Canada is party.

The bulk of Canada's scientific expertise in the areas covered by this strategy resides at AAFC, as do the national plant, insect and fungi collections and the plant and animal genebanks that support the RDT activities. Close collaborations with national and international partner organizations are a critical element of this strategy.

AAFC efforts through this Strategy will support increased sector productivity by:

- Enhancing crop productivity, quality and resiliency by providing sources of genetic variability for genetic improvement;
- Providing authoritative identification of species and enhancing the understanding of beneficial organisms (biocontrol agents, symbionts, pollinators, etc.), biotic competitors and pests that affect the sector's productive capacity; and
- Understanding the impact of environmental perturbations (e.g. climate change, etc.) on biodiversity and how that affects agricultural productivity.

Environmental performance will be improved by:

- Characterizing the ecological and evolutionary processes of plant parasitism and symbiosis, invasive species, and beneficial organisms that enhance the environmental performance of production systems;
- Understanding the impact of environmental perturbations on organisms relevant to agriculture (crops, farm animals, pests and invasive species) and providing authoritative identification of species to support the development and implementation of mitigation strategies; and
- Enhancing the understanding and use of crop and livestock genetic diversity to support sustainable agricultural production.

The Strategy seeks to improve attributes for food and non-food uses by:

- Providing research, knowledge and sources of genetic variability to improve the attributes of Canada's agricultural commodities and to support new opportunities for food and non-food uses.

Addressing threats to the value chain will be achieved by:

- Developing and enhancing knowledge of existing and emerging invasive species, pests and their hosts for current risk identification, in anticipation of threats to agriculture and to support the development of diagnostic tests;
- Collecting information on the incidence and movement of new pests or invasive species that threaten Canada's biodiversity and economy;
- Providing authoritative scientific support to other government departments and agencies to assist them in meeting domestic legislation and regulations and to develop and implement strategies to prevent or mitigate the impact of pests and invasive species on agricultural production; and
- Mitigating genetic erosion of production systems through the enhancement and conservation of crop and farm animal genetic diversity.

NEXT STEPS

As with most strategies, there is a need to keep the science strategies evergreen and maintain their relevance within the evolving context of the sector's science and technology requirements. To accomplish this, STB will continue to engage industry and other science partners so that the strategies can best inform the Department's science activities and investments, address new priorities as they emerge, and contribute to the development of broader AAFC initiatives in support of the sector.